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DISEASES OF THE NERVOUS SYSTEM

A PRACTICAL JOURNAL ON PSYCHIATRY AND NEUROLOGY

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DISEASES of the NERVOUS SYSTEM

A PRACTICAL JOURNAL ON PSYCHIATRY AND NEUROLOGY

Psychiatry in Central Europe

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Hartford, Connecticut

This is a report of an extensive tour through Central Europe, Switzerland, Austria, Yugoslavia, Italy and Germany for the purpose of collecting documentary evidence to be utilized in the bibliography of a forthcoming doctoral dissertation on drama psychotherapy applied to patients suffering from various types of epileptic seizures. As regards drama psychotherapy, little evidence of its use was found; this form of therapy has not as yet worked its way into Central Europe. Some people knew about psychodrama, others have heard of Moreno, and occasionally someone is encountered who is theoretically familiar with both these "concepts." Such instances are quite rare, however, and even rarer are instances where one has heard about a method of drama psychotherapy other than that of Moreno. This author has talked to a number of European psychiatrists who consider this ignorance a blessing for their patients. Since this paper is not intended to be a critique of Moreno's methods, however, we wish to remain neutral on this point and to simply refer the interested reader to an article which has recently appeared on the subject in a French psychoanalytic journal.[3] Moreno's reply should be interesting.

While our trip may have been quite uneventful on the subject of drama psychotherapy, it turned out to be most informative and interesting in many other aspects, especially as to the personalities and viewpoints of those who assume responsibility for the genre of psychiatry being practiced in Central Europe. It is primarily to a discussion of these viewpoints and these personalities that we wish to devote this paper. Where possible, however, we shall discuss also the methods of therapy they propose or practice, as well as the "milieu" in which they work. This is not intended to be an ultra-scientific report with innumerable statistics. Where necessary, we shall present statistics, but we are much more concerned with presenting an honest and unbiased report of what we have seen, with whom we have talked and what it all means.

Switzerland

In Zurich we had the pleasure of spending an entire evening with Dr. L. Szondi. His theories have not, as yet, been widely accepted in the United States, but the Szondi-Test has become an effective and appreciated aid in diagnostic testing. Szondi is a man of amazing vitality. He has a warm, pleasant personality and spares no effort to make visitors feel at home. He speaks of his theories, his research and his other activities in an almost "psychodramatic" manner, encouraging his guests, in some rare moments of silence, to have another of those excellent Swiss chocolates.

We have no intention of presenting Szondi's theories in this paper; firstly, this would be an impossible task, and secondly, they can readily be found in his own books.[8] For those, however, who are unfamiliar with Szondi's writings, we wish to briefly mention a few of the essential points of his theories. In view of the complexity of his sys-

tem, and the necessarily limited space, this is not a simple task. Our host facilitated matters, however, by dictating to us the nucleus of his theories. The following is given, to some extent, in Szondi's own words, translated into English.

Szondi is the originator of "Schicksalsanalyse" (fate analysis), or the psychology of "conductors." The latter are carriers of psychopathological hereditary tendencies. To use genetic terms, they cannot "phenotypically" be detected, but constitute "genotypic" entities. Conductors have inherited these tendencies from either father or mother, never from both, or they would no longer be conductors; in the latter case, the illness would overtly manifest itself. "Schicksalsanalyse," thus, devotes itself to a study of "phenotypically" normal, but "genotypically" ill descendants of mentally deranged individuals, or others, who were, themselves, conductors. Such psychopathological hereditary tendencies are, nevertheless, not without important implications. Szondi claims that it is due to such psychopathological factors that we choose, unconsciously, our profession, our love partners, and our friends. Two people, for example, who are conductors of the same hereditary tendency, according to "Schicksalsanalyse," are likely to fall in love with one another, or, if of the same sex, and more heterosexual than homosexual, they are likely to become close and intimate friends. Szondi presented many examples which, he believes, prove his theories. One of his many experimental research efforts was directed toward determining the factors responsible for spontaneous group formation. Conducting this research in a corrective institution for juveniles, he observed, for example, that 12 girls who had become friendly and had, spontaneously formed their own group, were all descendants of epileptics. A study of another such spontaneously formed group showed its members to be descendants of feebleminded persons. Szondi calls such persons "hereditarily related"; not related by family ties, but by a mutual "recessive" tendency toward the same type of psychopathology.

Had Szondi limited his theories to this unconscious choice of love partners and friends, he might have been subjected to less criticism. He went one step further, however, and claimed that these same latent psychopathological tendencies are responsible also for our choice of trade or profession. He feels that man, in his choice of work unconsciously seeks to satisfy latent hereditary tendencies. A conductor of epilepsy carries within him an "instinctual drive constitution," which shows itself in periodically repressed and sudden explosively discharged affects such as hate, anger, scorn, revenge and jealousy. This same conductor, however, carries also tendencies which are diametrically opposed to those just described; these latter tendencies seek to atone for the former. It is for this reason, continued Szondi, that some conductors of epilepsy choose trades such as firemen, butcher, etc., while others choose to become nuns, priests, missionaries, etc. Szondi points to one of the most important works ever written about schizophrenia; the writer's sister was a schizophrenic patient in a mental hospital. Another, more striking example, is the case of a schizophrenic woman: One of her sons was institutionalized as a schizophrenic, another son became physician in the same institution, and the third child, a daughter, turned toward psychoanalysis, and became rather famous in her field.

It can easily be seen why Szondi's theories, as they apply to the psychiatric profession, are unlikely to be considered favorably by many of his colleagues. According to Szondi, many psychiatrists and persons in allied fields, refuse the idea of having been pushed into their profession, toward their love partners and their friends by psychopathological hereditary tendencies. Somewhat resignedly he added that the occasional rejection of his theories is, for such reason, often subjectively colored. It seems to us that a rejection of his theories, on this basis, is not entirely reasonable, because Szondi's research shows that conductors who have chosen their professions following their specific psychopathological tendencies, are usually more capable than others who lack these specific psychopathological tendencies. This is explained by Szondi on the basis of heterosis, the phenomenon of heterozygote plant and animal carriers of a lethal or defect factor exhibiting a vitality superior to that of

homozygotes not possessing these abnormal factors.

Szondi has written voluminously about his theories and his research, but has not devoted much time to considerations of how his theories can be utilized in therapy. He informed us that this information would appear in the fifth volume of "Schicksalsanalyse." Asked whether he would be willing to give any advance information, he volunteered some extremely interesting statements not only within the area of individual, but also within the realm of group therapy. Since, however, his book will be published shortly, we feel it would be presumptuous to include this advance information. We have been specifically authorized, however, to state that Szondi's method of therapy is not a modification, but an extension of classical psychoanalysis.

The following morning, appointments had been arranged for us with several physicians at Bleuler's clinic at the Burghoelzli. This institution is considered a "must" for European physicians passing through Zurich. It is one of Switzerland's most modern hospitals, not only in construction and technical facilities, but also with respect to psychotherapeutic methods. In addition to standard techniques such as Freudian, Adlerian, and Jungian analysis, several comparatively new psychotherapeutic efforts have recently been introduced. Dr. Benedetti, one of Bleuler's psychiatrists at the Burghoelzli, is employing Rosen's techniques; Dr. Erika Schweizer is attempting to introduce the Sechehaye method. While Rosen's work has already been described in American journals,[5] the Sechehaye method is comparatively unknown in the United States. It is a form of analysis in the course of which the analyst attempts to actualize symbols utilized by the patient. Apples, for instance, according to this technique, may be considered an actualized or realized symbol of the mother's breasts. Inducing a patient to eat two apples has, in this connection, unmistakable implications. The attempted realization of such symbols supposedly satisfies the patient's repressed desires. The originator of this technique, Madame Sechehaye, has not as yet applied her method to a great many patients. Her book[6] describes its application to one patient, a girl named Rene. While the practical import of Mme. Sechehaye's technique cannot yet be fully evaluated, her book is certainly of theoretical interest, and Dr. Schweizer, at least, feels that Sechehaye's methods can be successfully utilized as an adjunct to analysis.

In the course of a brief interview with Professor Dr. M. Bleuler, we asked about his views on drama psychotherapy. Bleuler, a friendly, quiet man highly regarded by his co-workers and assistants, told us that in view of the fact that there seem to be forthcoming in recent years so many different methods of and ideas for psychotherapy, he has not had the opportunity to study the therapeutic potentialities of drama group psychotherapy.

How Bleuler feels about group psychotherapy in general, however, is not difficult to ascertain. As progressive an institution as the "Burghoelzli" does not appear to have a budget for group therapy, and utilizes for the application of this therapy a capable young woman who is sufficiently interested in this field of endeavor to offer her services on a voluntary, non-paid basis. No wonder, then, that we were unable to locate in Switzerland a systematic application of any form or manner of group psychotherapy! If the "Burghoelzli" is not sufficiently interested to employ a qualified group therapist, how can some of the smaller and less important psychiatric clinics or institutions be expected to take a step in this direction?

The Swiss position on group psychotherapy was further amplified in a communication which this author received from C. G. Jung.

> "I have no personal experiences as regards group psychotherapy. I deal primarily with people who would go into boiling water rather than have their personal affairs publicly aired. I have seen some attempts at group psychotherapy and have been obliged to notice that really important problems did not become subject matter of discussions. Naturally, these are my own unimportant subjective experiences."[4]

With all due respect to Jung we wish to state that we have seen many attempts at group psychotherapy where essential points did enter the discussion. It seemed to us,

therefore, that the absence in Switzerland of group therapy might be attributable to reasons other than any suspected weakness within the method itself. The results of our investigations seem to substantiate our theory on this point. There are psychiatrists in Switzerland who feel that the Swiss are too individualistic to permit themselves to be "dragged like goats" into group sessions. There are other psychiatrists who believe this absence of group psychotherapy to be due to the fact that Switzerland, being a very conservative and cautious nation, is not willing to adopt methods of therapy until they have been tried and proven successful in other countries. The "individualism" explanation might be a rationalization; the "conservatism" explanation is certainly a rationalization. Group psychotherapy has been tried in other countries, and has proven itself an excellent method of therapy with certain types of patients. A full time paid group therapist might convince the Swiss.

Austria

Vienna is the city where attempts at revolutionizing psychiatry were once made by men such as Freud, Adler and Moreno. Unfortunately, not each generation can bring forth such men, and if one were to turn Vienna 1952 upside down, he would search in vain for psychiatric genius. Trodding along Viennese pavements from one psychiatrist to another, we could not help but engage in a passing reflection. Vienna's present generation might have had potential Freuds and Adlers, had they not either walked out or been carried out of Austria in 1938. There are many men in Austria who would like to be Freuds and Adlers; there are even more who actually believe they are and who spare neither time nor effort in their attempts to convince the visitor.

Austria 1952 is a country with too many physicians. With the acute shortage of qualified physicians in most parts of the world, this sounds like an absurdity; it is, nevertheless true and was confirmed by practically every psychiatrist we were privileged to meet. We were told about young medical psychotherapists imploring their former university professors to send them clients at the ridiculously low fee of five schillings (twenty cents American money) per hour.

A great deal of excitement in psychiatric circles was caused recently by an anonymous article which appeared in one of Austria's daily newspapers which presents a blistering attack upon one of Austria's leading psychiatrists, Professor Dr. Hans Hoff, chief of the psychiatric-neurologic university clinic of Vienna. Dr. Hoff has spent several fruitful years in the United States and is regarded by his co-workers as an able and progressive psychiatrist. To obtain an idea of the venom with which psychiatrists themselves are attacking one another, and to visualize the undercurrent of rivalry not only between psychiatrists and psychologists, but between psychiatrists within their own group, we believe it profitable to reproduce a few passages of the above referred to article "Psychiatry in Austria—Monopolistic Desires of a Leading Professor."

". . . it has been suggested that politicians, prior to assuming leading positions, be psychiatrically examined to avoid the possibility of mentally deranged persons playing havoc with the lives of their people. Such an effort to prevent a dictatorship of fools can just as easily lead to a dictatorship of psychiatrists, which would be just as undesirable. . . . The chief of the neurologic-psychiatric university clinic in Vienna is Professor Dr. Hans Hoff. The former chief, Professor Poetzl, a world renowned authority on psychiatry, due to his membership in the NSDR (Nazi party), had been discharged in 1945, and following the death of his successor, Professor Kauders, Professor Hoff who had passed the Hitler period in America, was appointed to this position. . . . Dr. Hoff—while in America—has learned how to make publicity. What seems to be attractive to the taste of the American public, however, does, by no means, seem equally attractive to Austrian mentality. . . . Professor Hoff, as one can easily read in a number of press reports, is in the process of firmly establishing psychoanalysis at the Vienna Clinic. He has initiated separate clinics for prostitutes, for old people, suicide candidates, alcoholics and neurotics. Unfortunately, the practical results of all these efforts show a negative correlation with the amount of newspaper space accorded them. The clinic for "Soldatenbraeute" (soldier brides) was suddenly discontinued and the girls sent to the "Steinhof" (Vienna's Mental Institution), where they were interned together with the insane. Alcoholics who, on the basis of newspaper publicity, voluntarily reported to the clinic, were also interned at the "Steinhof" and obliged to submit to work therapy—without alcohol! Such methods are absolutely "unsocial"; they constitute

an inexcusable breach of confidence, and especially as only poor people are being treated in such a manner, they lead to discrediting the field of mental hygiene. . . ."

We do not intend to defend Dr. Hoff. We have met this gentleman and find it difficult to believe such accusations. Admittedly, some resistance was encountered on the part of his staff to discuss the "Soldatenbraeute" experiment, but we, nevertheless, believe this newspaper article to contain a great many exaggerations. Besides, anonymous newspaper attacks are hardly the correct channel for airing such matters.

We have presented extracts from this article for the sole purpose of acquainting the reader with one of the reasons for the comparative lack of psychiatric progress in Austria. Most of the psychiatrists with whom we discussed this article, were convinced that its instigator or instigators are men from their own profession. A careful reading of the article leads to the same conclusion. Under such conditions it is difficult to achieve progress. As long as all these jealous little Freuds battle against one another, it is doubtful that one great, big Freud is ever going to emerge. This stupid rivalry between members of the same profession is also responsible for the fact that it is extremely difficult and time consuming to obtain accurate information about psychiatric activities in Vienna. Most of these people spend hours in emphasizing the perfection and the validity of their own theories, and discrediting those of their colleagues. What strikes the visitor from abroad is the utter subjectivity of these attacks against members of the same profession and the narcissism of the accusers. It makes one understand and appreciate the intolerable position in which Freud must have found himself at the turn of the century.

Steinhof, at the outskirts of Vienna is Austria's largest institution for the mentally deranged. It has attached to it a stigma which is more intense than that attached to any hospital in the United States. An individual, once interned at the Steinhof, has upon discharge to cope with difficulties which make a readjustment to society almost impossible. It is for that reason that only the very poor, or those who are psychotic to the extent that they cannot be maintained in a private institution, end at the Steinhof. Steinhof can be classed with the poorest and most neglected hospitals in Europe. Nor does the fault seem to lie with its administration. There is simply not enough personnel, and above all, there is not enough money. In the course of our visit we were shown some interesting statistics. It appears that one day in 1942, there were about 5000 patients hospitalized at the Steinhof; the very next day, this figure had been reduced to about 1400. This drastic reduction in the number of patients was not due to sudden mass remissions or cures, but to a large number of German trucks which had transported 3500 patients to a place of "mercy killing."

"Subordinataet-Autoritaet Psychotherapie" (Subordination-Authority Psychotherapy) was originated by Professor Dr. Erwin Stransky.[7] The latter is a kindly, old gentleman, retired from the university due to old age, but a great deal more productive than some of his younger colleagues. He is known in Austrian psychiatric circles as the man "who says what he thinks when he thinks it." Admittedly, this is a rarety in Austria. Stransky's system of psychotherapy has as central themes "discipline and severity." When a patient seeks psychotherapy, it is equivalent to saying that he seeks help, that he can no longer get along by himself and that he, thus, has a desire to be protected by and to subordinate himself to the therapist. The latter must take advantage of this situation, and must tell the patient that in order to be able to direct or command his life, he must first learn to obey the therapist. Therapy, thus, takes place on the basis of an "authority-subordination" relationship. Stransky feels that we need more discipline.

In the city of Innsbruck we find psychiatric activities centered around the University Clinic under the able direction of Professor Dr. H. J. Urban who is one of the more interesting men we met in the course of our stay in Austria. Firstly, he attacked no one, secondly, he seemed much more interested in hearing about American group psychotherapy than in telling us about himself and his own work. He can be softspoken

and friendly, but his temper is known and feared from one border of Austria to the other. This author has met, in the course of a two week stay in Austria, three persons who have been discharged by Urban in recent years. The professor has the reputation of being willing to try any new form of psychotherapy. There are, accordingly, being utilized at his clinic a variety of therapeutic and diagnostic techniques about some of which we want to report. In addition to an eclectic method of analysis combining the systems of Freud, Adler and Jung, Urban has utilized hypnosis, Schultz' Autogene Training, narcoanalysis, group psychotherapy with alcoholics, insulin patients and epileptics, some form of psychodrama, music therapy, rhythmotherapy (social dancing), bibliotherapy, group calisthenics, various types of work therapy, astrology, graphology and chirology.

Urban's special interests, however, are in the area of parapsychology.

a. The application of Rhein's ESP test before and after various types of therapy (electroshock, insulin shock, narcoanalysis, hypnosis, leucotomy etc.).

b. Utilization of a pendulum for the purpose of locating the exact place of an illness, the theory being that wherever and whenever this pendulum commences to swing, the illness has been located. Observing this author's somewhat incredulous reaction to this technique, Urban's assistant quickly pointed out that it had been utilized only upon the request of some individuals who believed themselves to have discovered with this technique a revolutionary method of diagnosis. The clinic's function, therefore, according to this assistant, was to test the validity of these claims. Incidentally, it didn't work.

c. The physician thinks about something and asks the patient to draw a picture of it. This idea is not quite as absurd as it may seem, and might have excellent results if utilized as a projective technique, rather than as an effort to test ESP. Always having in mind the applicability of an idea to group therapy, we suggested to Urban that he examine the possibilities of his technique in that light. A group of about ten patients could be asked to draw pictures of the therapist's thoughts. These drawings are analyzed, the patient's name is replaced by a number, the drawings are randomly distributed among other patients who are then required to write associations to them. This means that patient A., for example, would be required to write associations to a drawing made by patient No. 5. Used as a projective technique it thus accords two possibilities for evaluation and analysis. Urban seemed moderately enthused with this suggestion and its possibilities are presently being examined at the Innsbruck clinic. Urban is probably Austria's most progressive psychiatrist.

Yugoslavia

It was with some hesitation that we decided to enter Yugoslavia. The way from Vienna to the Yugoslav border is short in miles but long in ideology. A few hours after having passed the Russian demarcation line of Austria we reached the frontier of Yugoslavia. All other passengers had left the compartment at the last Austrian stop, and a woman, upon observing that I planned to continue my journey, stated "Sie haben aber Schneid!" (My, but you have courage!) Not being an unduly courageous person, I quickly lost whatever little courage I may have had. It was, thus, with mixed feelings that I entered Yugoslavia. Let it be said that our stay in that country proved whatever fears we may have had wholly unwarranted. Wherever we went, we were received with courtesy and interest. No obstacles were placed in our way and we were free to come and go as we pleased. We have little doubt that our movements were observed but it was accomplished in a manner aimed at causing us the least possible inconvenience.

The reason which has prompted us to include in this paper this not very psychiatrically oriented bit of information is simply that numerous Yugoslav psychiatrists and psychologists expressed surprise, and we believe, some disappointment, that Anglo-Saxon colleagues passing through Europe, never find it worth their while to look beyond the borders of Yugoslavia. Since we believe it possible that some American psychiatrists or psychologists share our own

initial apprehension at the thought of entering Yugoslavia, we hope that the above notes will be of interest to them.

Having visited only the cities of Zagreb and Ljubljana we are really not in a position to speak of psychiatry in Yugoslavia, but must confine our comments to a discussion of psychiatric efforts in these two cities. Conditions in the northern part of Yugoslavia are, by no means, identical with conditions existing in the so-called "deep south," viz. Bosnia, etc., Slovenia and Croatia, the provinces in which Zagreb and Ljubljana are located, are a great deal more advanced socially. This is not intended to mean an undue reflection upon these other provinces, rather it is a truth which bases itself upon the fact that the southern provinces have, for many years, been neglected, and have, in spite of hard work and sincere effort, not as yet managed to catch up with the progress made by their northern neighbor provinces. This difference in development holds true for all areas of Yugoslav society, but is especially pronounced in the area of psychiatry. In many parts of the south, there exists no psychiatric clinic, and th mentally ill are allowed to vegetate in their homes, or, in cases of criminal insanity, are imprisoned or sent to a psychiatric institution many miles away from their homes. Usually, these latter clinics or hospitals are so overburdened with patients coming from within their own regions that they are physically unable to care for these intruders from other provinces. The employment of psychologists or other technical personnel is unknown in southern Yugoslavia. All this should not imply, however, that conditions in the north are ideal as regards psychiatry. Let us simply say that they are much better than in the south.

Ljubljana Polje, for instance, is a psychiatric institution under the direction of Professor Dr. Kanoni Janes. A word should be said about the director of this hospital, for it will help the reader understand the atmosphere of the hospital. Kanoni works an average of fourteen hours per day, every day, and often expresses the wish that time would not go by so fast. In spite of his abnormally heavy working hours he has an easy smile, greets everyone by their first names, and is likely to point with personal pride at some object constructed by his patients in the course of work therapy. This warm personality of Professor Kanoni is the guiding spirit of this clean hospital. His physicians and attendants seem to identify with their chief and, in spite of the hard work placed upon the shoulders of each employee, there is a general atmosphere of good will.

They all mean well, but they have little to work with. Polje has 380 beds, 900 patients and four physicians. Little more need be said. Still, time is found for therapy. This is so much more unusual, since each physician is also obliged to do his own administrative work. There are no secretaries, and in Kanoni's make-shift office stands a typewriter which has the professor typing on it many hours each week—especially the night hours, when the patients have gone to sleep. Nor is this all that is expected of the psychiatrists. Court psychiatry (forensic psychiatry) takes up a great deal of their time. Between 1945 and 1952, these four psychiatrists managed 570 medical opinions. Yet, as has already been indicated, time is found for therapy. There is first of all shock treatment which is being utilized to the limit. Between 1948 and 1952 there have been administered a total of 22,528 insulin shock and 42,584 electroshock treatments. A combination of insulin and electroshock, within the same period, was applied 2173 times. Fever therapy is utilized in a limited number of cases. Between 1948 and 1952, there have been 2742 applications. Most extensively utilized is work therapy in groups. This work therapy is most diversified and consists of field work such as gardening and agriculture, and of indoor work such as carpentry, plumbing and electrical installations. Recreational therapy is utilized and consists of social gatherings and the recitation of poems, all patient-directed and produced.

After being acquainted with the general conditions at Polje, we hardly dared posing our question regarding group psychotherapy to the professor. However, with his usual enthusiasm, he told us in broken German, "Oh, we do a lot of it here; as a matter of

fact, if you come downstairs into the theater right now, you will see real group psychotherapy." This writer was admittedly curious. Group psychotherapy being done in an institution with 380 beds, 900 patients and four psychiatrists, should be a rather novel form of therapy. It was. There were about 25 patients—primarily schizophrenics—physicians and aides playing chess against an equal number of visiting university students. The chess games were of an individual nature, viz. one patient was playing against one visitor. Each table had on it a special chess clock on which could be read the minutes or seconds remaining for a player to make his next move. Professor Kanoni added the following information about his group psychotherapy. He calls it intellectual group therapy, in contrast to simple work therapy. Officially registered with authorities in the form of a functioning chess club, the players meet frequently. The director of this club is a physician, its technical advisers are some of the patients. Physicians, attendants and patients play together as a team against the "invading" visitors. Thus, identification between patients and physicians is furthered, and the patients are given the opportunity to function as members of an "in-group" defending the honor of the hospital against an "out-group." The results of this form of therapy, according to Kanoni, are a remarkable increase in psychosocial interaction. Patients who had been autistic to the point of stupor, gradually, by means of their interest in chess and the feeling of "belonging" to their club, become more natural in their conduct. Their love for the game and the necessity for unconditional concentration leaves no time for visual or auditory hallucinations. I watched a catatonic schizophrenic engage in the game. After having apparently decided upon his next move, he concentrated his attention on the chess clock. Most of the time allowed him for this next move had already passed. Still, he sat there, regarding the clock, not executing his move. Finally, with about two or three seconds to spare—his eyes still on the clock, rather than on the chessboard—he slowly put out his hand and made his move. He then sank back into his chair momentarily exhausted.

Kanoni pointed out that the ideas of chess club and team work had been conceived by one of his patients, and that hospital authorities had only aided this patient and others to get these encounters started. We were further informed that the club has received some publicity and that a leading Ljubljana journal has extensively reported on its activities. As to our own opinion regarding this form of therapy, we were tremendously impressed. This chess club is by far one of the best methods of group therapy we have ever seen.

In Zagreb, we found a psychiatric clinic within the city and a psychiatric hospital at Vrapce, a few miles outside the city. The former functions under the direction of Professor Lopasic and is a comparatively progressive institution. Badly damaged in the war, it has largely been rebuilt, and several modern structures and laboratories are in the process of being erected. Psychotherapy is in the hands of Dr. Stepjan Betlheim and several assistants. Within the limits imposed by an acute shortage of qualified staff members, the following forms of intensive psychotherapy are being utilized: narcoanalysis, psychoanalysis (since 1951), hypnosis, and Schultz' Autogenes Training. Dr. Betlheim has many plans for the future. Together with a female assistant, he plans to commence group psychotherapy. He has struggled through many of the Anglo-Saxon writings on the subject, especially Slavson's works, and is now in the process of selecting suitable subjects for his first group. He hopes that within a short time group therapy will be applied to a rather large extent at the clinic, and will also be attempted in other institutions.

The psychiatric hospital at Vrapce, also damaged in the war and still in the process of reconstruction, is in a position similar to that of Polje Ljubljana, with the difference that the former has a much greater patient capacity. Nevertheless, even this greater capacity does not prevent a serious discrepancy between beds available and patients seeking admission. As Professor Julius, the director of the institution, puts it, "We must do the best we can; we are trying to build new hospitals, to create new facilities. Until they are created, we must struggle along."

Upon inspecting the hospital, it was plain to see that they are struggling. The total impression is one of cleanliness, but when we look closer, we can see unmistakable signs of an institution understaffed and unable to care for other than the most dire needs of its patients. In one corner of a ward, two idiotic children sitting opposite one another in one bed, near them an old man who has spilled his soup and can find no one to care for him; in still another sector of the ward an adolescent whose night shirt shows many traces of defecation. But there are more cheerful aspects. An old Viennese woman, sitting in her bed and painting. They are beautiful paintings and have already been on exposition. Next to her a woman molding objects out of clay and greeting her visitors with a pleasant smile. For each patient the accompanying physician has a friendly word or a handshake. And most outstanding of all, the incessant running about of attendants. There are not nearly enough of them, and there are many who need them.

Professor Julius has expressed some of his views on the existing situation in an article which has recently appeared in one of Yugoslavia's leading psychiatric journals:

"The far-reaching social changes in Yugoslavia have brought about a great many positive moments in the forming of the populations consciousness. The rapid industrialization has, however, caused extensive fluctuations of the working masses from the country to the towns, thus resulting in remarkable changes in the life of the individual, with, from time to time, obvious tendencies towards the development of neuroses. The general conditions for therapy are not favorable because of the unbalanced relation between the number of therapists and patients. In order to improve this condition it is proposed to stress the importance of the Movement for Mental Hygiene, to introduce medical training, to enhance the practitioner's knowledge of psychology, to create in the shortest possible time a larger number of specialists in psychotherapy and finally to open an appropriately organized network of polyclinical establishments. Fulfillment of these measures of social psychiatry will help towards a speedy and greater success in contemporary treatment of neuroses."[2]

Professor Julius is one of those responsible for a new training program for clinical psychologists to be initiated shortly at the University of Zagreb. It is supposed to be an eight year training course and will help a great deal in placing some of the responsibilities presently carried by the few harrassed psychiatrists upon the shoulders of thoroughly trained clinical psychologists. This is as it should be and some other Central European countries may do well to take a lesson from Yugoslavia in this respect.

If we were asked to summarize our impressions of Yugoslav psychiatry and psychiatrists, we would say simply, "seldom have we seen so few work so hard for so many."

Italy and Trieste

We visited Trieste and Bolzano. The former has a large psychiatric hospital, but information given by Dottore Evelina Ravis is discouraging. Treatment consists of electro- and insulin shock, as well as fever therapy, with occasional applications of narcoanalysis. Psychotherapy such as psychoanalysis or other intensive methods, are practically unknown and often, ridiculed. As regards group psychotherapy, Dr. Ravis writes as follows: "Group psychotherapy which we consider most appropriate for psychosomatic cases, is not practiced at this hospital. To engage in such therapy we would, in addition to physicians, need psychologists. We do not have any."

The only information we were able to gather about psychiatric activities at Bolzano was that a medical psychotherapist had politely been requested by an Italian physicians' association to remove the sign "psychotherapist" from the door of his office. This decided us not to go to Rome.

Germany

We concluded our trip through Central Europe with visits to a number of German cities, among others Munich, Stuttgart and Tuebingen (in Kretschmer's honor, called: The Lion's Den). The information which we have been able to gather about psychiatry in Germany, however, is so vast that a special paper will be devoted to it.

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Congenital Absence of the Odontoid Process

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Congenital absence of the odontoid process is a rare condition. Five cases have been reported in the literature by Roberts,[1] Weiler,[2] Scannell[3] and Stiefel.[4] The diagnosis was made radiologically in patients who complained of pain in the neck, inability to move the head to the right or to the left, or of an abnormal position of the head following an accident or a strenuous physical exercise. The clinical symptoms in all these cases were caused by dislocation of the atlas on the axis, and fusion of the atlas and axis was advised to prevent recurrent dislocations.

The term platybasia has been used interchangeably with basilar impression of the skull by some authors, although the latter expression denotes the invagination of the upper cervical spine into the posterior fossa due to the deformity of the foramen magnum and of the upper cervical vertebrae, and the former means the deformity of the base of the skull without the actual invagination and occasionally without the deformity of the foramen magnum.[5]

The diagnosis of congenital absence of the odontoid process and of platybasia in our case was made post-mortem; and it is of a particular interest that the patient who suffered from numerous frequent severe prolonged epileptic seizures did not complain of the pain in the neck, abnormal mobility, or inability to move the head. The reason for it will become clear from the description of the findings.

Case History

B.S.H. No. 37056: Clair D., a 26-year old white girl was admitted to the Boston State Hospital August 4, 1939, with the history of numerous epileptic seizures. On admission she seemed dazed and confused. The patient was the fourth of seven siblings, who were healthy physically and mentally. Mental disease, consanguinity, tuberculosis, lues or alcoholism were denied. Patient's birth was normal. She walked and talked at a normal age. Had usual childhood diseases. Had no convulsions as a child. She had suffered from bronchial asthma since the age of 6 months. She graduated from grammar school but left high school in the third year because of asthma. Her menstrual periods had always been irregular. She began having convulsions in her twenty-second year. During the seizures she stiffened, turned blue, waved her arms about, frothed at the mouth, bit her tongue, and lost control of her bladder. She usually was unconscious for about ten minutes, confused for half-an-hour, falling asleep and feeling well on awakening. She frequently had spells at night in her sleep. She had never smoked or taken drugs outside those prescribed for her epileptic seizures. She was considered an extremely pleasant person who was lately becoming depressed because her condition did not improve.

About a month prior to admission she had continuous series of convulsions for five days. Was said to be in a "coma." She was taken to a hospital with a tentative diagnosis of a brain tumor. After a week's observation she was sent to a psychiatric hospital where she was diagnosed "psychosis with idiopathic epilepsy" and transferred to Boston State Hospital.

Physical Examination: Well-developed and well-nourished young woman. Heart and lungs—negative. Pulse—regular. B. P. 110/70. Cranial nerves intact. Reflexes—physiologic. Sensation—intact. Numerous small brown nevi over chest. Blood serum—Hinton reaction negative. C.B.C.—negative. Urinalysis—negative. X-ray of the chest revealed saccular bronchoectasies throughout zone two of the left lung. Eye—grounds negative.

Mental Examination: Immature in her behavior, slightly incoherent. Admitted having spells of confusion related to her epileptic attacks. Was oriented in all spheres, denied hallucinations and delusions.

From the Pathological Laboratory of the Boston State Hospital.

Clinical Course: She had numerous epileptic attacks of increasing severity, went into status epilepticus several times, which was relieved by intramuscular injections of sodium luminal. She had never been excited, suicidal, paranoid or threatening. She had a long series of asthmatic attacks relieved by adrenalin and ephedrine. Her physical condition became poor. In April 1941, she appeared to be continuously in a stuporous condition, became progressively weak and died April 12, 1941. Autopsy was performed 10 hours later.

Anatomical Findings: Status epilepticus, conus medullaris, congenital malformation of the skull, playbasia, and congenital absence of the odontoid process of the axis.

Discussion of Pathology

The base of the skull appeared flat, shallow, narrow and short. The posterior fossa was definitely small and narrow. The anteroposterior diameter of anterior fossa was 5 cms., middle fossa 6 cms., and posterior fossa 5 cms. The clivus showed no abnormalities. The foramen magnum was large and flat and extended backwards till about the middle of the posterior fossa. The atlas had a very thin, atrophic anterior arch. The axis on the contrary was very large and firm and had no odontoid process. The upper surface from which the odontoid process should have arisen was smooth and sat under the thinned-out anterior arch of the atlas to which it was firmly attached. The third cervical vertebrae appeared very small but showed no defects. The sixth cervical vertebrae had a single, not a bifid, spinous process resembling the seventh cervical vertebra which was normal. The rest of the spinal column showed no abnormalities. There was no spina bifida. Brain was 1280 gms. Dura matter was negative. Pia-arachnoid was thickened. The left frontal lobe was blanched from the frontal tip to the Rolandic fissure. The gyri were somewhat flattened and the sulci more shallow than in the corresponding area on the right. The vessels of the right frontal and especially the right parietal lobe were injected. The convolutions were outlined more sharply than on the left and sulci were deeper. The right parietal lobe seemed to be slightly protuberant. The base of the brain showed some thickening of the pia about the circle of Willis extending anteriorly to the optic chiasm. There was a pressure cone of the cerebellum on the lower level of the medulla, more severe on the right than on the left. The configuration of the brain was abnormal in that the left hemisphere was shorter than the right. It was due entirely to the small size of the left occipital lobe, which was noticeably shorter than the right. (Fig. 1.) Both occipital lobes failed to cover the cerebellar hemispheres, left more so than the right, so that the left cerebellar hemisphere was more exposed than the right. The whole brain was broad, of brachycephalic type and firmer than usual. The cranial nerves showed nothing of note. The vessels were thin and delicate. Sections of the brain showed small ventricles, and no gross pathological changes either in the cortex, or subcortical matter, or basal ganglia. The anterior lobe of the pituitary gland was congested. The pineal gland was cystic. The cord showed no gross evidence of traumatization or atrophy. Microscopical examination showed great thickening of the pia-arachnoid and congestion of the pial vessels. The cerebral cortex showed no disturbances of lamination and no loss of nerve cells. The cortical vessels of the right hemisphere were congested and dilated.

Fig. 1. To illustrate the abnormally short left occipital lobe. Notice the flattening of the dorsal surfaces of the cerebellar hemispheres, especially the left, by pressure.

Discussion

The case here presented is that of a female epileptic patient who died in status epilepticus at the age of 28. The malformation of the brain consisting of shortening of both occipital lobes, particularly of the left, platybasia and the congenital absence of the odontoid process of the axis were discovered at the autopsy. Sections of the brain revealed no other gross abnormalities. The lateral ventricles were rather small. The occipital lobes did not cover the cerebellum. The posterior fossa, normally the largest of the three and on lower level than the other two, was narrowed in its antero-posterior diameter and lifted higher than usual, due to the flattening of the base of the skull. Its capacity was smaller than usual.

In the fetus the points of ossification for the occipital bone appear in the third month and the osseous nuclei of the axis and odontoid process in the fifth month of its development. The cerebral hemispheres cover the cerebellum in the sixth month. The relationship between the growing brain and spinal cord on one hand and the skull and spinal column on the other is such, that anything abnormal in one system affects the other. It appears therefore probable that malformation of the occipital bone, platybasia, preceded and caused malformation of the brain. The abnormal flattening of the occipital bone reducing the capacity of the skull made it too short for the growing brain, which became broader and shorter in its posterior part following the outline of the posterior fossa. The foramen magnum had smooth, thin, flat borders, extended backwards in the posterior fossa and appeared larger than usual. It may be that the size of the posterior fossa being considerably smaller than usual made the foramen magnum appear larger. The very thin anterior arch of the atlas was firmly attached to a strong abnormally large axis at the place where the odontoid process should have been and thus the possibility of the dislocation of the atlas was either prevented or minimized by nature. However, a wide range of the rotation of the head with a jolt to the brain initiating the epileptic seizure, cannot be excluded. This may have been one of the causes, if not the main cause, the abnormal configuration of the brain and thickening of the pia-arachnoid being another. There were no clinical signs of focal cortical lesions and the x-rays and E.E.G. could not be done because of the patient's lack of cooperation. Therefore, the clinical diagnosis was idiopathic epilepsy. The post-mortem findings made it clear that the developmental abnormalities of the base of the skull, two upper cervical vertebrae and brain were the cause of the epileptic seizures in this case.

Summary

A case of congenital absence of the odontoid process of the axis, platybasia and malformation of the brain in an epileptic patient is presented. The role of these developmental abnormalities in causing epileptic sizures is discussed.

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Dormin Poisoning

A Case Report

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Recently, at the Boston Psychopathic Hospital, a patient in acute delirium as a result of an overdose of Dormin was observed and treated. He had made a suicidal attempt.

Case History

A 42-year-old married man of paranoid personality, with a long history of frequent depressions presented himself at the admission office of the Boston Psychopathic Hospital on February 25, 1953, at 6:10 p.m., stating that he had taken 36 capsules of Dormin two hours previously in an attempt to commit suicide. He complained of dizziness, lethargy and dryness of the mouth; he was tense, restless, and paced about constantly; his face was markedly flushed. This man had been known to the hospital for several years, having been treated previously for suicidal attempts with barbiturates. Until eight days before admission he had been taking 3 grains of nembutal nightly; his physician had refused to prescribe more barbiturates. During this eight-day interval the patient had resorted to Dormin for his sleeplessness, taking as much as 100 milligrams (four capsules) daily.

On admission, physical and neurological examinations were negative, except for the following: temperature 98° Fahrenheit, pulse 110, respirations 24, and blood pressure 140/92. There was a marked flushing of the face, hands and neck, with a moderate generalized erythema of the rest of the body; the mouth was dry. Pupils were slightly dilated and reacted to light and accommodation.

Thirty minutes after admission the patient had an explosive outburst of panic. He ran about the ward, striking his head against the wall and floor. He became cyanotic. Restraint by four psychiatric aides was necessary. He was apparently reacting to both visual and auditory hallucinations, for he stated he was "hearing voices and seeing things." Within the next hour he had periods of drowsiness from which he could be awakened and four less violent outbursts necessitating restraint. Gastric gavage revealed partially dissolved pink capsules in his stomach content. He was given 250 cubic centimeters each of whole egg whites and soapy water, in an effort to induce vomiting. He gradually quieted down and four hours later was able to speak rationally with the doctors. Throughout the night he slept at intervals but was restless. The following morning he was mentally clear, showing no abnormal psychological or neurological findings.

Comment

The clinical picture observed in this patient following an overdose of Dormin was similar to the clinical picture observed in acute atropine intoxication, e.g., drowsiness, dryness of the mouth, flushing, tachycardia, delirium and hallucinations.[1,2] Dilatation of the pupils was observed during the acute excitement periods. Dormin is an anti-histamine; overdoses of other anti-histamines have been reported to present a similar clinical picture; "excessive doses (of anti-histamines) are commonly stimulative to the central nervous system and may produce mental stimulation and convulsions."[3] It should be borne in mind that most anti-histamines also act as a central depressant. The present case suggests that Dormin in large doses in a mentally ill person with suicidal tendencies, may be dangerous.

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Standardization of Carbon Dioxide Treatment

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After the introduction of a new treatment in medicine there always follows the difficult period of proving its effectiveness. There are the inevitable premature reports, the raised hopes, a contrapuntal note of caution from the more conservative clinicians, and only after long and painful experience, a final evaluation of its usefulness. Every physician has watched these innovations rise and fall, and he develops a cautious "wait and see" attitude when one is introduced.

The situation is especially difficult in psychiatry and a new treatment starts under a severe handicap. Medicine and surgery are psychiatry.[1] Results in psychiatry are often subjective and whimsical; there exist often subjective and whimsical; there exist few objective or physiological landmarks; treatment is usually carried out within one or another preconceived frames of reference; dogma and authority take the place of controlled experiment. Added to this there is the blind prejudice that solidly opposes any attempt to introduce somatic methods into psychiatry. Ours seems to be the one field of medicine where technical knowledge, training, and experience are blandly discounted, and every man feels himself born an authority on the subject and entitled to pass judgment.

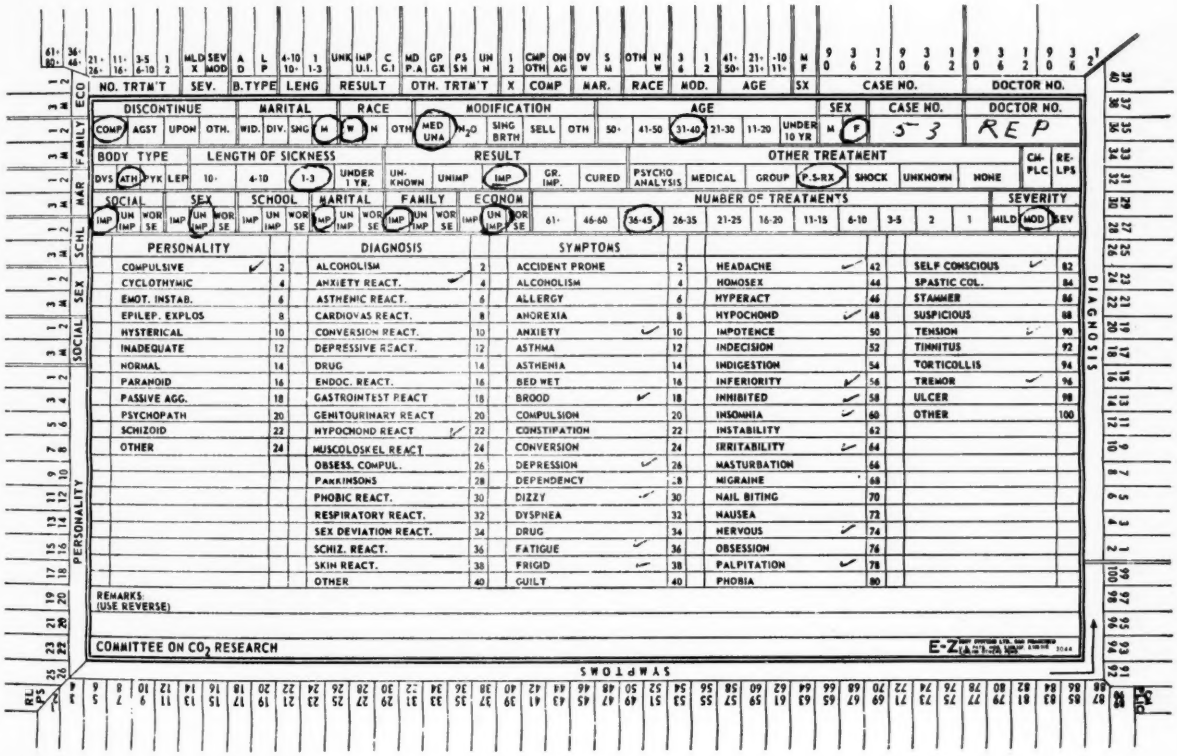
All this has been encountered in the introduction of carbon dioxide into the psychiatric armamentarium. Much has already been done in the initial experimentation with this drug in the treatment of neurosis,[2,3,4] its beneficial effects have been challenged by others,[5,6] different techniques have been introduced and extolled.[7,8,9,10,11] In some quarters the treatment has been exploited by charlatans. Most important, however, is the subtle opposition to this treatment which has not developed under any scientific aegis. This almost takes the form of a whispering campaign against it, and seems to stem from various sources. Partly this arises from physicians who have tentatively tried the treatment on a few cases with indifferent results, have run into snags in the technique used, or have been frightened by the anxiety of their patients or some of the dramatic abreactions. In general, such experiences have not been published so that it is impossible to calmly evaluate them. More important, resistance to carbon dioxide treatment stems from the prejudice in that part of the profession and public who have no right to an opinion at all, not having had any direct experience with the treatment, but who are opposed to it on the ground it violates preconceived notions of the nature and cure of emotional disease. Add to this the frightened cries of a few frustrated persons who have tried the treatment with high hopes, become frightened and discontinued, and it is easy to see why there is so much confusion in the profession anent this treatment.

In an attempt to bring some order out of this chaos, it was decided at an informal symposium on this treatment at Atlantic City in May 1952, to form a committee which would try to coordinate the results of the different physicians using it and publish the statistics thus obtained. After some study of the problem, it was decided to use edge-punched cards for the purpose. This extremely versatile instrument has been in use for many years and has found a few medical applications.[12] They have the advantage over machine-punched cards in being relatively inexpensive, ideally suited to small scale studies, and in the fact that every step of the operation is under the control of the clinician himself. With their use, complicated cross tabulations and correlations which might otherwise take hours of boring work can be made in a short time.

After a number of conferences the committee decided on the items it wished to investigate and a card was drawn up and printed incorporating these features. Each physician who was known to have had experience with the treatment was then contacted and his cooperation elicited in filling out one such card on each of his completed

cases. Over sixty agreed to do so and new requests are still coming in. A description of the card and the plan of the experiment is of some importance as the principles are applicable to any clinical study. It is important also in that it is a cooperative study. The difficulties in evaluating a treatment often go far beyond the ability of any one clinician to explore, and this seems especially true of carbon dioxide. One man may treat thirty patients in a year with it and at the end of that time have only a limited idea of its usefulness. However, sixty clinicians pooling their results can produce a much more impressive array, in this case there may be over three thousand.

Figure 1 shows the actual card used, filled out and punched for a hypothetical case. Such a card is filled out on each patient and returned to the committee who punches it and tabulates the data. The physician numbers his cases and puts his initials on the card with the case number so that the case is not otherwise identifiable. He then has only to number or check the appropriate categories. Most of these are self-explanatory. The categories under *Modification* refer to the different ways of administering the gas: the continuous breath method of Meduna, Meduna's nitrous oxide induction, LaVerne's single breath technique, Sellinger's fractional method,[13] or any other that may be used. The heading *Discontinue* refers to whether the treatment was completed, discontinued against the advice of the physician, discontinued on his advice, or any other way the treatment is ended. *Other treatment* refers to other types of treatment for the same condition which the patient may have received either before or concomitant with the carbon dioxide treatment. Definitions of *personality* and *diagnosis* are those contained in the American Psychiatric Association's statistical manual[14] with the exception of *epileptic-explosive* and *hysterical* personality. These refer to an irritable, impulsive, and explosive personality in an epileptic and the classical childish, histrionic, demanding personality of the hysteric. The diagnosis hypochondriacal reaction is not in the manual either, but seemed to occur frequently enough clinically to warrant its inclusion. It refers to the tendency to be overly-preoccupied with the body, somatic symptoms, and the general state of the health.



No definitions of *improved, greatly improved, unimproved,* etc. are given, these being left up to the clinical judgment of the physician himself. These terms are hard to define in an acceptable manner and yet each clinician has his own concept of what the terms imply. The assumption is that each of us will agree pretty closely on these terms. Whether this assumption is correct or not will come out clearly in the final tabulations when the results of the different physicians are compared and subjected to the chi square test.[15] If the differences among physicians is not statistically significant, the point will have been proved; if they are, efforts will have to be made to arrive at acceptable definitions.

It will be noticed that with this card it is possible to have as many different diagnoses or personality types on a patient as is necessary to adequately delineate his clinical picture. The disadvantage in many existing methods of classifying diseases and tabulating statistics is that diagnoses must be mutually exclusive. This may give a false picture of the incidence of psychiatric entities as most of these are mixed. A patient who is anxious and is diagnosed anxiety reaction may also be alcoholic and depressed. Or a combination of obsessive-compulsive and hysterical character traits may occur frequently. To subsume such cases under only one category is arbitrary and may result in the loss of valuable information. Indeed, the only rationale for so doing seems to be traditional and a carry-over from statistics where hard and fast, mutually exclusive distinctions can be made.

It will be noticed also that the *Symptom* items printed do not by any means exhaust the capacity of the card. These all have even numbers. The odd numbers on the outer edge of the card have not been assigned and can be expanded at any time to double the number of items that are being kept track of. These same cards, then, can readily be adapted to other uses, such as for other series or other types of psychiatric treatment.

A word might be said about the technique of punching and sorting these cards. Although the cooperating physicians in this study do not have to bother with this themselves, anyone who is seriously considering adapting punch cards to his own use should read the authoritive source book on the subject by Casey and Perry.[16] It is enough for purposes of this paper to say that a special hand punch is used which will punch out either the shallow outer hole or the deeper inner hole. For sorting, long tumblers resembling hat pins are passed through the appropriate holes and the cards which have been punched in that hole drop out of the deck. If the outer hole is needed, the cards punched in the inner hole must first be eliminated, necessitating two sorts. Most of the coding used on this card is what is known as direct coding, that is, one hole stands for one item or group of items. The coding of the case number makes use of the principle of a geometric series, so that any digit can be punched by a combination of other numbers.

Study of the card will make clear the many potentialities in its use. Any aspect of these patients can be readily analyzed by any other aspect, so that we can confidently look forward to answering many of the puzzling questions that come up in connection with this particular form of treatment and which have so far defied analysis. Final analysis should show definitively what percentage of improvement can be expected, what kind of cases it does or does not work on, where the nature of the improvement lies, whether or not psychotherapy is necessary along with it, the average number of treatments necessary, what are the best methods of administering the gas, and many other facts. To obtain the same information from controlled experiment is at the present stage of development of our science manifestly impossible, and it is here that the science of statistics can come to the rescue. Consider how simple it is for example to separate the schizophrenic reactions from the anxiety reactions by a single sort of a deck of cards and to analyze and compare the clinical results. Or to take another example, a similar set of cards can be prepared on any control group of patients getting either no treatment or a different type of psychiatric treatment, and be used for purposes of comparison.

Psychiatry is about ready for the transition from the descriptive to the more exact mathematical phase necessary before it can be considered a science and not just an art as at present.[17] Familiarity with and confident use of statistical techniques are its only hope in this and it is the sincere desire of our committee to foster this tendency in a small way by introducing this approach to the standardization of our results.

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Treatment of Stutterers with Carbon Dioxide

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Although psychogenic factors as a cause of stuttering have been recognized for some time stuttering has been regarded as primarily a speech defect to be treated by the use of such methods as speech drills slow speech techniques, group speaking, and all the techniques developed for normal speaking situations. The group speaking techniques have become more and more popular with the addition of principles of relaxation as a general physical therapy and the introduction of psychological aids, usually given by the speech therapist. The small degree of success achieved through these methods suggested the value of a study in which the psychological factors would be considered as primary and the stuttering regarded as a symptom of a psychoneurotic personality.

In the fall of 1947, a group of 32 stutterers came to me for help through a speech clinic I was conducting in an adult education program in Chicago. All of the group had had legitimate speech training; 23 had sought psychological help; four had been to psychiatrists; one had been analyzed for three years without completing his psychoanalysis. I worked with this group using standard speech methods in both group and individual therapy for seven months; results showed that improvement was, as usual, only apparent; individuals occasionally reached normal speech fluency within the group and in interviews with me, but returned to previous speech patterns in all other situations.

Feelings of inferiority and general anxiety appeared so characteristic of the group that I doubted the efficacy of further speech therapy and proposed that a group of stutterers be accepted for CO_2 therapy through the clinic of the Illinois Neuropsychiatric Institute. To the original group, 18 others were added through referrals.

Before treatment each patient had an interview with the speech therapist, an interview with the psychiatrist, a physical examination, and wrote his autobiography. As speech therapist, I obtained from the patient a short history of the speech difficulty, a speech test, and a reading test. A recording was made of each patient's speech. Sixteen patients chosen at random took Thematic Apperception and Rorsach Tests. Consultations between the speech therapist and the psychiatrist reviewed each case and eliminated a few. Three patients were rejected because of physical conditions: one for high blood pressure, two for heart conditions. Two other patients who were over 55 were eliminated for generally poor physical condition. Twelve patients dropped out in the early stages before treatment for various reasons. The final experimental group, therefore, consisted of 33 patients between the ages of twenty and fifty-five—29 men and four women. The ratio of men to women was close to that established statistically in the general population; there are nine male stutterers to one female.

Treatments were given three times a week, with the total number of treatments ranging from 30 to 110. Records were kept on each patient covering treatments, reactions, dreams, reported changes in speech and behavior patterns. Each patient kept a daily chart record of his own impression of relative speech fluency or difficulty under different conditions. After each ten treatments I gave tests to check the speech blocks, repetitions, secondary mannerisms, and the rate of speech, on standardized material. In addition, I received reports from family members and friends; checked telephone response through calls at home and at work; had many interviews with husbands and wives of patients; attended parties given by them. In general, I tried to supplement test results and patient's reports by direct observation of speech and personality changes.

All of the patients I classify as improved showed a lessening of fear in speaking situations, a willingness and a desire to speak. The percent of improvement is rated according to actual decreases in blocks and hesitancies and the elimination of substitutions and repetitions. Some patients, however, who showed a 25 per cent improvement in speech tests also showed a willingness to speak ten times as great as before. Some patients with a 50 per cent improvement not only showed an increased willingness to speak, but also deliberately sought out opportunities to speak. Those with a 75 per cent improvement, in spite of occasional blocks and speech difficulties, accepted their speech pattern as normal for them and no longer considered speech a problem. Patients with 100 per cent improvement fulfilled all the criteria I have mentioned and achieved a normal speech pattern.

Of the 21 patients considered improved, 11 showed 100 per cent improvement; three showed 75 per cent; two showed 50 per cent; five showed 25 per cent improvement. The 14 patients showing 75 per cent to 100 per cent improvement received an average of seventy treatments. It is interesting to note that the two receiving the fewest number of treatments, achieving total improvement with 30 and 33 treatments, had both started to stutter after adolescence.

Of the 12 patients discharged as unimproved, a number must be considered as slightly improved in the willingness to speak and the ability to face other people. Some showed marked personal changes in behavior and attitudes. One who had postponed his marriage for five years, married three months after stopping the treatments. Three recognized family problems as a source of difficulties and left home to live by themselves with some improvement in speech after the change. One, discharged as unimproved, was discovered a year later to have made a 100 per cent improvement without further therapy of any kind.

I consider that 63 per cent of the patients improved. There was no difference in improvement between those who continued speech therapy and those who did not. The most the speech therapist can do is to attempt to give the stutterer speech controls, and in many cases the control is more unpleasant and frustrating than the stuttering. It appears, then, that for most adult stutterers, speech training as therapy is ineffectual; stuttering is a problem for the organ psychiatrist using CO_2.

Neurological Clinical Pathological Conference

of the

Cincinnati General Hospital

CHARLES D. ARING, M.D., *Editor*

CASE NO. 249841

Presentation

O.A., a 41-year-old negro cab driver, was first seen here on July 16, 1949, in the Receiving Ward where the following story was elicited largely from his landlady, because of his own faulty memory. For about one year the patient had been suffering from occasional episodes of weakness and numbness of the left arm and leg during which he would drop objects from his hand and would stumble when walking. These were transient and infrequent, and function was apparently normal following an attack. There had also been a gradual but increasingly profound change in personality, the patient forgetting events which had only recently transpired and sporadically becoming angry at seemingly trivial occurrences. He had been fired from his job because of recalcitrant behavior. He was reported to have had at least one grand mal seizure and perhaps more; none of the details were available. During the three weeks immediately preceding admission there had been a ten pound weight loss, occasional nausea and vomiting, and the patient had enough insight to appreciate that he couldn't run as fast as he might have six months earlier and that he was "feeling nervous." In his youth he had been a professional boxer. Syphilis and gonorrhea were contracted at an early age, and there was no evidence that adequate therapy had ever been instituted.

Physical examination revealed a well-developed colored man who was hostile at the beginning of the interview but, when reassured, cooperated with the physcian. Blood pressure was 150/100, pulse 80, temperature 99.4°. Neurological examination showed the following abnormalities: vision in the right eye was entirely lacking (since 1937 when he suffered a stab wound above it), the disc was white and had a discrete border; vision was good in the left eye, the disc being of normal color and contour. The vessels in both fundi had only minimal arteriosclerotic changes. The pupils were equal, round, regular, the right being fixed to both light and convergence, the left responding promptly to both. The right eye rested in an upward and outward position, and did not move in tests of motor function of the eyeballs. There was slight ptosis on the right. A peri-oral tremor was noted. There was mild weakness of the left hand and a tremor developed in this extremity on prolonged exertion. The patient was slow in recognizing objects placed in his left hand but sensation otherwise was intact. The deep reflexes were hyperactive on the left side but no pathological signs were elicited. Lumbar puncture: initial pressure 150 mm. H_2O; final pressure 120; clear, colorless fluid; 150 lymphocytes mm.^{3}; 115 mg. per cent protein; gold curve 5555444300; positive Wassermann. The patient signed out against advice but returned of his own volition two weeks later for admission to the Neurology Service where he was treated with 12 million units of penicillin. He had no complaints and was described as doing well on a clinic visit in late August 1949.

He was not seen again until July 20, 1952, when his landlady brought him to the Receiving Ward reporting that he had been seeing and hearing imaginary things and that he was intensely suspicious of the motives of his friends in their attempts to help him. After his discharge from the hospital in 1949 she said that he had gone back to his cab-driving job and worked regularly until March 1952, when he had a traffic accident and was fired again. Since then he had had much trouble in walking about, was often incontinent of urine and feces and had developed a bad temper.

Admitted to the Psychiatric Service, the previously described physical findings were still apparent along with the following additions: the heart rate was 120 and suggestive of gallop rhythm, the patient was facetious, flippant and attempted to conceal defects in his memory. There was a slight ptosis of the right lid, Hoffmann responses bilaterally, an equivocal extensor plantar response on the left, a general diminution in the perception of all sensation on the left but especially of the appreciation of position in the toes; tests of fine movement and co-ordination were felt to be less well performed on the left. Gait was ataxic but there seemed to be no tendency to fall in any one direction.

On July 21 a lumbar puncture demonstrated an initial pressure of 200 mm. H_2O, clear colorless fluid with 6 lymphocytes mm.^{3}, 54 mg. per cent protein, gold curve 0012221000 and a positive Wassermann. Several blood Kahn tests were positive. Peridontoclasia necessitated the extraction of a tooth under local anesthesia on July 25 and although the operation itself was uneventful, the patient very soon afterward developed a fluctuating state of consciousness in which he at times would appear fairly alert but at other times was stuporous. An electrocardiogram was without significant abnormality but systolic gallop rhythm developed, there was a fall in blood pressure to 115/85, and the tachycardia increased to 144.

A lumbar puncture on July 28 showed an initial pressure of 65 mm. H_2O, 10 lymphocytes mm.^{3} A medical consultant felt that the patient had had a recent myocardial infarction and transferred him

to the Medical Service where he was put on anticoagulants, Pronestyl and supportive therapy. After several days on this regimen he had improved to such an extent that he was returned to Psychiatry with the intention of re-treating his lues and considering his ultimate disposition.

Plain films of the skull were not remarkable. A chest film showed slight cardiac enlargement with dilatation of the aorta. An electroencephalogram on August 5 demonstrated marked slow dysrhythmia with evidence of suppressed activity in the righet temporal area. Pneumoencephalography was done on August 7.

Differential Diagnosis

Dr. Arnold M. Meirowsky: As a youth my father, whom I admire for his wisdom, counseled me never to speak on a subject that I did not master. I am afraid I am not following his advice today. Since reading the history of this case I have been reviewing the literature. The reading of publications on diagnosis and differential diagnosis of brain tumors and intracranial hematomas, on medical neurological problems and on central nervous system syphilis did not leave me with a secure diagnosis that would fit our case beyond question.

Under the circumstances it might be wisest to look with perspective at the overall picture with which we are confronted, rather than to concern ourselves with such things as perioral tremor and toe signs. We have the story of a man who has syphilis. When this patient was admitted some three years before, he presented signs and symptoms suggestive of a focal lesion. If this man had been my patient then, I would have done exploratory burr holes although I realize in retrospect that my procedure would have been wrong because we know that he was undoubtedly improved by antisyphilitic treatment.

At his second hospital admission about three years later, our patient arrived some two or three months following a car accident in which he was driving. Signs and symptoms elicited at this time were strongly suggestive of a space-occupying and expanding intracranial lesion. It is my belief that such a lesion must be ruled in or out whenever it is reasonably suspected. Our working diagnosis then for the time being is space-occupying, expanding, intracranial lesion in the presence of neurosyphilis, which is perhaps asymptomatic in nature.

What are the various space-occupying intracranial lesions that must be considered in any differential diagnosis? We might be justified in heading our list with the intracranial hematomas of traumatic nature. Subdural hematoma, or any other intracranial hematoma may present a variety of signs and symptoms and may vary so greatly in manifestations that it deserves serious consideration in any differential diagnosis of expanding intracranial lesions. Brain tumor, brain abscess, primary vascular disease, tuberculoma or tuberculous granuloma and gumma all produce mass lesions that require discussion. Parasites and certain fungus infections also may be responsible for space-consuming intracranial disease. Echinococcus cysts of the brain occur not infrequently in Greece, but are rarely seen in our country. Another parasitic disease should be mentioned because with the passing of time we may see it more frequently; I am referring to paragonomiasis which is common in Korea. About nine months ago I had occasion to operate on a Korean child in which a mass of calcified paragonomiasis cysts had displaced almost the entire frontal and temporal lobes of the brain. Fungus infection of the brain is extremely rare. Personally I have operated only one case of Aspergillus infection involving the brainstem and that was in one of our soldiers in Japan.[4] The non-suppurative encephalitides, of course, also may simulate signs and symptoms of mass lesions of the brain.

Let us now analyze our patient's history and the physical findings as they have been passed on to us in the record. At the time of his first hospital stay he had severe personality changes, he had left-sided weakness and, if I interpret the record correctly, sensory auras that progressed to epileptic seizures. Unfortunately we do not have a detailed description of the seizures. The information that one would like to have includes prodromal signs and symptoms, head movements, eye movements, extremity movements, sequence of events, duration of seizure, incontinence for urine and feces during the seizure and the nature of post-ictal signs and symptoms. We have also learned from

the record that our patient improved without surgical intervention after having undergone antisyphilitic treatment (12 million units of penicillin). Three years later, and approximately three months after having been involved in a car accident, he was readmitted. His landlady then revealed that he had shown personality changes of late, that weakness of his entire left side made walking rather difficult for him, and that he was incontinent of urine and feces. Examination at that time, as it has been reported to us, was strongly suggestive of an extensive surface lesion with the evidence pointing to the right temporal and parietal lobes, and possibly to the right frontal lobe.

During this second stay in the hospital his responsiveness decreased and he sank gradually into coma. A lumbar puncture revealed a low initial pressure which does not exclude space-occupying intracranial lesion, and which is the rule rather than the exception in chronic subdural hematoma in the presence of extensive cortical atrophy. Inasmuch as no red cells were encountered in the cerebrospinal fluid, a subarachnoid hemorrhage can be ruled out.

Electroencephalographic (EEG) findings bear out the neurological examination. The EEG showed slow dysrhythmia with evidence of suppressed activity in the right temporal area. This, I believe, is quite characteristic for a surface lesion in that area. It seems to me that these EEG findings are not uncommonly seen in a subdural hematoma.[11]

This sums up the essential points of the history and of the neurological deficit in our patient who had neurosyphilis. The only space-occupying syphilitic lesion is gumma. While I do not know the incidence of gumma in this hospital, intracerebral gummas are exceedingly rare. In Cushing's series of 2023 brain tumors recorded during a period preceding modern antiluetic treatment, the incidence of gumma was 0.6 per cent. That was long ago; today intracerebral gummas are seen even less frequently. Also, a gumma rarely occurs as a single lesion. Merritt, Adams and Solomon[8] make the following statement in their monograph on Neurosyphilis: "It has been our experience that today the diagnosis of cerebral gumma is almost always erroneous, even in the presence of a positive spinal fluid and signs of an expanding lesion." Though we cannot rule out gumma in our case we do not want to consider it as diagnosis before considering a space-occupying, expanding, intracranial lesion that might be amenable to treatment. Gummas are very resistant to antiluetic therapy so that a therapeutic test would not help us; such test would only delay surgical intervention which might well be a life-saving procedure.

Of the brain tumors, only a surface tumor could explain the neurological deficit and the history. Such surface tumors as meningioma or angioma, however, usually do not allow an asymptomatic interval of three years. The second period of this man's illness is not long enough for a benign tumor to produce as extensive neurological deficit as was found at the time of the second admission. The possibility of a hemorrhage into an otherwise silent tumor certainly has to be considered. Such hemorrhage could well explain the sudden decrease in responsiveness which this patient developed during the second admission. Neither the history nor the neurological findings are those of brain tumor. Brain abscess also can be ruled out quite readily. There is no evidence of an acute infectious process. Such striking findings as tenderness of the scalp and tenderness of the skull to percussion were not elicited at any time.

Primary vascular disease always presents the most difficult problem to me in any differential diagnosis. The patient's history is not typical of it. Examination does not reveal evidence of systemic vascular disease and the fundi did not show any vascular changes. Although we cannot definitely rule out primary vascular disease it seems to me that it is up to us first to determine beyond question whether this patient has an expanding lesion that is amenable to surgery. We have no reason to think that our patient has tuberculosis or any parasitic disease. These considerations lead me right back to the first diagnosis on our list, traumatic intracranial hematoma.

Essentially, trauma may result in any of three types of hematoma, singly or in combination. The extradural hematoma may be

arterial or venous in origin. The arterial hemorrhage, due to rupture of the middle meningeal artery or one of its branches, gives signs and symptoms rather rapidly and usually leads to death within eight to twelve hours unless it is removed surgically. A venous extradural hematoma, usually due to a tear in the superior wall of one of the major dural sinuses, does not produce signs and symptoms as rapidly as a hemorrhage from the middle meningeal artery. Our patient does not fit the picture produced by an extradural venous hematoma.

What then about subdural hematoma which is always venous in origin? Trauma may produce such a subdural hematoma with or without contusion of the brain substance. In the absence of contusion, the acute subdural hematoma may go unrecognized at the time and may be tolerated for weeks or months, manifesting itself by slowly developing changes. More often than not, personality changes are noticed first by members of the family and friends. Peculiar behavior, steadily decreasing quality of job performance, incontinence in public places and other actions that are all indicative of loss of inhibition and loss of rational thinking, have resulted in loss of job, jail sentences, and commitment to mental institutions for patients with chronic subdural hematoma. Later a focal neurological deficit suggestive of a surface mass pressing on the brain may develop.

These chronic subdural hematomas are not at all infrequent. More often than not, they are not accompanied by increased intracranial pressure, particularly so in patients with cortical atrophy. The latter is not uncommon in people suffering from chronic alcoholism. It may also occur in boxers and it so happens that our patient was a professional boxer at one time. I recall rather vividly a patient that I saw some three or four years ago on my service at the Kennedy Veteran's Hospital. On my return from a short trip, the residents showed me a patient who appeared semi-stuporous and who had a minimal focal neurological deficit. He had no changes in the eyegrounds and his lumbar puncture pressure, if I recall correctly, was reported as 75 mm. of water. Striking indeed was the flattened affect in this man and the history of loss of inhibition. Repeatedly the patient had emptied his bladder in public places and had made a nuisance of himself on various occasions. The patient had been sent to the hospital for confirmation of a diagnosis of "progressive cortical atrophy." At operation we removed a tremendous chronic subdural hematoma which was enclosed in thick membranes. That patient had cortical atrophy, but made a splendid recovery after removal of the hematoma. That case and our case today have much in common, although I do not recall syphilis in the former.

On the basis of these considerations, I believe that we must rule in or out chronic subdural hematoma without wasting valuable time for our patient. What about the dangers of surgery in this man? In the presence of syphilis, general anesthesia is not well tolerated[6] and it would be my preference to perform the necessary surgery under local anesthesia. Taking those precautions, I do not think that the surgical risk is great. Two bitemporal burr holes, one on each side, would allow us to detect the subdural hematoma overlying the temporal and parietal lobes if present. In the event that our diagnostic impression is wrong, we could then add two posterior burr holes and do a ventriculogram which would help us with the answer.

I should like to end my discussion here, but I guess I should venture a final diagnosis. I believe this patient had a chronic subdural hematoma covering the right frontal, temporal and parietal lobes and extending into the base of the middle fossa. I would expect the ventriculograms to show a shift of the right lateral ventricle toward the midline, possibly also obliteration of the right temporal horn, or a shift of the temporal horn toward the midline. I also would expect the third ventricle to be tilted indicating extension of the hematoma into the base of the middle fossa.

In suggesting bitemporal burr holes as the first step in an effort to rule in or out a subdural hematoma, I am fully aware of the fact that I may be wrong with my provisional diagnosis. History and findings as they have been passed on to us, however, make it mandatory to search for a surgically

removable lesion first, despite the established diagnosis of neurosyphilis.

Dr. Charles D. Aring: Well, Dr. Meirowsky, there isn't a student in agreement with you. Thirteen students felt that this problem represented dementia paralytica in relapse; one that this was the rare gumma; one that this was meningovascular syphilis, one that this represented a thrombosis perhaps on another basis than syphilis. Ten thought that this was a tumor; of these, two favored meningioma, eight glioma. In one instance I couldn't tell what the student felt, since he discussed practically everything and left it up to me to decide. I should say that seven of the students discussed subdural hematoma, two of them with reasonable conviction that it might be present. Despite this diagnostic disagreement among the students, their discussions were of good quality. They had some concern about relapse after penicillin therapy. I am not prepared to admit that this happens in neurosyphilis; it would be more accurate to say that the patient has not had enough penicillin.

Dr. Meirowsky asked about our experience with gumma. Since the opening of the Neuropathology Laboratory (1936) I can recall only one case, a gumma of the pituitary gland with the syndrome of hypopituitarism. This case was discussed in one of our clinical pathological conferences some four years ago by Dr. I. Arthur Mirsky. Should you care to read this, you can find it in this journal.[2]

Dr. J. Park Biehl: How much penicillin is recommended in the treatment of neurosyphilis?

Dr. Aring: I believe our patient received an amount considered adequate for a first course, 12 million units from July 29 through August 11. For a change we are not responsible that he didn't obtain more penicillin later. He was asked to return but probably felt so well that he ignored this request. Obviously he should have had a second course before he actually obtained it; he was given another 11 million units after the air encephalogram. The decision about subsequent penicillin should rest almost exclusively on the cerebrospinal fluid findings, the goal being its return to normality as far as concerns cellular and protein content, and reactions in the colloidal gold and Wassermann tests.

Dr. Biehl: Do you think we can expect reversal in serology within a few years? I believe that many successfully treated cases will remain Wassermann fast for many years.

Dr. Aring: I'd expect reversal in most cases within three years after thorough treatment, which may include repeated courses of penicillin.

Dr. Samuel A. Trufant: I believe Dattner's recommendation was 16 million units over a period of about three weeks with retreatment in 18 months if reversal of serology has not occurred.

Student: Wouldn't you have to use fever therapy?

Dr. Aring: We are thankful to have that behind us; fortunately fever therapy has been made obsolete in neurosyphilis by the antibiotics. Dr. Levin, will you discuss the roentgen studies?

Dr. Emanuel Levin: In the first air study we saw no filling of the right lateral ventricle but a considerable degree of shift toward the left of the left lateral ventricle and the third ventricle. The third ventricle is tilted considerably, the superior portion leftward. There is some dilatation of these ventricles. The subarachnoid spaces were filled on the left, but we found no air in subarachnoid spaces on the right. Since there was no air in the right lateral ventricle we cannot comment on abnormalities within that structure, and the best that we can do with this examination is to say that there is a mass on the right, displacing the ventricular system to the left. We should wonder at this time about something over the cortex preventing air from entering these subarachnoid spaces. The possibility of occlusion of the right intraventricular foramen should also be considered.

The arteriogram clinches the diagnosis. In the antero-posterior view of the arterial phase, the right middle cerebral artery arose to the region of the Sylvian fissure, and the right anterior cerebral artery located beyond the midline toward the left, indicating a considerable degree of shift of the an-

terior portion of the brain over to the left. Normally, the many branches of the middle cerebral artery come out laterally and hug the internal margin of the skull; but here we can see displacement of these vessels medially. There is something at the surface which does not permit the branches of the right middle cerebral artery to radiate laterally.

In the antero-posterior view of the venous phase, the medialward displacement may be observed to even better advantage. This entire lateral area is occupied by a mass which in our experience has invariably been subdural hematoma. On the lateral views there was nothing of diagnostic significance. There is elevation of the proximal branch of the right middle cerebral artery, signifying upward displacement of this vessel by foreign material.

Dr. Ernest Penka:* We performed a right temporal craniectomy first. When we came upon the dura it was purplish in color. We enlarged the burr holes with the aid of rongeurs and incised the dura. There was expelled immediately thick, black material resembling crank-case oil, which just didn't seem to stop coming. We would occlude the exit every few minutes in order not to decompress too rapidly, and we thought that we removed well over 100 cc. Some thick, clotted material also exuded. It is difficult to estimate fluid amounts at the operating table, but one can judge by the distance of the brain from the dura.

A membrane could be seen beneath the dura, it was about 3 mm. thick and may be described as bluish spongy material. Of course, it had been incised in the drainage; after evacuation a smooth glistening inner membrane could be seen in the depths of the cavity. A right occipital burr hole was then enlarged laterally and the tail of the subdural sac came into view, where the thick and thin membrane came to an apex. A number 8 catheter was slipped between the cortex and the thin membrane, and passed gingerly forward, and irrigation with saline was done. We hoped to peel this thin membrane from the surface of the cortex, a feat which we believe we achieved.

The cerebral hemisphere was markedly depressed; one could admit the length of the index finger into the void. There was no pulsation of the cerebral hemisphere whatsoever. However, prior to closing and after we had done the opposite side which was normal, we did see some minimal expansion of the depressed right cerebral hemisphere. The temporal lobe, parietal lobe, some of the occipital lobe and the posterior aspect of the frontal lobe on the right had been compressed by the enormous subdural hemorrhage.

The patient was semi-stuporous when we took him to the operating room, and his course was entirely satisfactory from that point on. Immediately after the clot had been evacuated he spoke more rationally. His neurological signs remitted; by August 15 function of the left extremities was normal. He was kept in the hospital mainly to receive another course of penicillin. A follow-up pneumoencephalogram was done on September 16 and he was discharged on September 19.

Discussion of Pathology

Dr. John Devanney:* Dr. Penka's operation was successful and we are happy to be able to show no more than a biopsy specimen as the pathological portion of this discussion. Under low power magnification there is a thick, fibrous membrane with many thin-walled large vascular channels. This represents the external membrane of a chronic, subdural hematoma. Also, in this portion of the specimen we see fibrinous debris representing a portion of the original blood clot. Then there is a small, much thinner, inner membrane; under high power magnification we see fibroblasts quite plainly, collagenous fibers, and the thin-walled vascular channels similar to those demonstrated in the outer membrane. An epithelial layer of perhaps two or three cells thickness may be seen in one part of this membrane.

This process begins as a slowly accumulating hematoma that usually is not large enough to seriously impair the function of the person injured. The mass of blood in the subdural space calls forth reparative processes, and the outer membrane of the sac is

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akin to fibrous scar formation seen elsewhere in the body. At the same time that this is forming, there is epithelial proliferation beneath the clot. This eventually becomes the thin membrane which does not change much with age; the external membrane grows, increasing in thickness as time progresses. Meanwhile the clot becomes liquefied and the high protein mass within the sac increases in osmotic pressure. This high protein mass is separated from the low protein cerebrospinal fluid by the thin pia-arachnoid, and the thin, inferiorly placed membrane of the subdural capsule. These combine to make a fine dialyzing membrane. In an effort to establish a chemico-physical equilibrium, low protein cerebrospinal fluid passes through the membrane into the high protein mass, causing a gradual increase in size of the total chronic subdural mass.[3] This increase in mass is very gradual.

I believe we may paraphrase Osler's remark about syphilis with the thought that subdural hemorrhage, acute and chronic, may mimic just about any other cerebral lesion. Because it is so treacherous, subdural hemorrhage must always be kept in mind in differential cerebral diagnosis. This is most important because it is surgically remediable and if not properly handled usually will lead to death or invalidism.

Clinical Diagnosis

Chronic subdural hematoma, right.
Asymptomatic neurosyphilis.

Dr. Meirowsky's Diagnosis

Chronic subdural hematoma, right.
Asymptomatic neurosyphilis.

Anatomical Diagnosis

Chronic subdural hematoma, right.

Dr. Levin: A second pneumoencephalogram was done prior to discharge (September 16), a month and a half following the subdural evacuation. The lateral views showed nothing abnormal, but on the frontal projection there was a slight shift of the midline structures to the left. Also there was still some dilatation in the ventricular system generally.

Dr. Meirowsky: Isn't there some cortical atrophy?

Dr. Levin: There is no visualization of the subarachnoid spaces on the right, and on the left there is a suggestion of some widening of the sulci.

Dr. Meirowsky: Of course you cannot always visualize subarachnoid spaces on the side from which a chronic subdural hematoma has been removed.

Dr. Aring: We have an unusual treat in store for you. May we see Mr. Allen?

Dr. Penka: This is always a pleasure to be able to do, believe me. (A brief neurological examination was normal except for the right eye signs.) Mr. Allen, would you tell us how you have felt since your operation and since you were discharged from the hospital?

Mr. Allen: Well, I feel like any other normal man, I guess. I'm well, as far as I know.

Dr. Aring: Are you working, Mr. Allen?

Mr. Allen: No, I'm not working yet.

Dr. Aring: Do you intend to?

Mr. Allen: Yes sir, I hope so.

Dr. Penka: Have you had any weakness on the left side of your body?

Mr. Allen: None whatsoever.

Dr. Aring: Can you tell us anything about the injury which may have produced your trouble? (Mr. Allen hesitated.)

Dr. Penka: We have the story about your accident with the taxicab approximately four months prior to admission.

Dr. Aring: Is that the only injury you suffered, Mr. Allen?

Mr. Allen: I think so.

Dr. Aring: Did that knock you out?

Mr. Allen: No, it didn't. It had no effect as far as I was concerned, at the time.

Dr. Aring: What part of your body was struck?

Mr. Allen: My left side.

Dr. Aring: How about your head?

Mr. Allen: No, I didn't hit my head. I hit up against the door on my left side, shoulder, arm and body.

Dr. Aring: Have you had any headache?

Mr. Allen: Not now, I don't.

Dr. Aring: Had you had headache before you were operated?

Mr. Allen: Oh my yes, plenty.

Dr. Aring: They were pretty bad?

Mr. Allen: Yes, I stayed irritable all the time. I don't know what was the cause of it but that's the way I felt.

Dr. Aring: Irritable?

Mr. Allen: Well, you know what I mean, I stayed angry. If anybody said anything to me it made me mad regardless of what they said.

Dr. Aring: Are you living with Mrs. Allen now?

Mr. Allen: Yes.

Dr. Aring: Are you getting along all right at home?

Mr. Allen: Yes, swell.

Dr. Aring: Thank you very much for coming; I'm delighted to see you so well, Mr. Allen. This man's health is a tribute to the neurological resident who consulted with the psychiatry service, and of course, it's a tribute to that service for having asked for the consultation. We are happy that Dr. Eugene Smith kept his senses about him in the face of frank neurosyphilis. His consultation resulted in the air studies and electroencephalogram which defined this lesion for us.

Several of the students remarked in their written discussions that when a patient is seen with neuro-

syphilis and localizing signs, it has been shown statistically that there is much more likelihood that a space-occupying lesion rather than the neurosyphilis is responsible for the localizing signs. I had not heard about such statistics previously, students continually teach me something. The students also discussed Lissauer's dementia paralytica[8] in which localizing signs occur; but they made the point that in the literature which they had perused, they found tumors more frequently responsible for localizing signs than the neurosyphilis itself.

Student: Do you think the hematoma was present prior to his first visit in 1949?

Dr. Aring: I would not think so. As far as we know, he functioned rather well for three years after he had received the first course of penicillin; he held down a job as a cab driver with only one eye functioning. You will recall in the single visit in late August after his discharge from the hospital, that he had no complaints. It is true that one doesn't get a clear idea from either the protocol or from the clinical record, what happened to the neurological signs in the interim. He was removed from our jurisdiction after the single clinic visit.

We can judge, within certain limits, the age of a subdural hemorrhage from the examination of the subdural membranes.[10] From the histopathological study presented by Dr. Devanney, I should say that the organization of these membranes helps us to place the lesion within the time span—some four months—indicated in the story, as it was given by his landlady.

Dr. Trufant: From a clinical standpoint, if once a patient with subdural hematoma develops frank neurological signs such as the left-sided weakness that this man had, he seldom recovers to the extent that our patient did for any substantial period of time. Once they start developing neurological signs, progress is usually down-hill. It would be remarkable if a patient with such an extensive chronic subdural hemorrhage could make a functional recovery for some 3 years, to the point where he could hold a job requiring manual dexterity.

Dr. Aring: Subdural hemorrhage occurs more frequently than is generally recognized.[9] Studies done in the Massachusetts State Hospitals[1] revealed an incidence of 7.9 per cent subdural hemorrhage in 3100 consecutive autopsies during a period of 20 years. This particular experience would seem to indicate one of several things, either the mental signs of subdural hematoma have been the reason for admission to mental hospitals, or the incidence of trauma is high in mental hospitals.

Student: How significant is the absence of a history of trauma when one is faced with a differential diagnosis that includes subdural hematoma?

Dr. Aring: In the first place I urge you not to await a story of trauma to think of subdural hemorrhage. Secondly, in this hospital we obtain no story of trauma more often than the other way round in subdural hematoma. This means either that we are given no history, or, as in this man, the trauma was so mild that it passed unnoticed, or as insignificant. Even today he was not impressed by our attempt to connect the taxicab accident with his illness. Parenthetically it would seem redundant to tell you that bruises and abrasions anywhere on the body are as reliable an indication of trauma as is a story of same. Too often they pass unnoticed or are not remarked on, and hindsight tells us that they were the "history" that would have given away the game.

Thirdly, don't expect a major head injury before you consider the diagnosis of subdural hematoma. Extremely mild trauma may shear off bridging veins,[5,9] trauma that had been tolerated on many occasions previously. These bridging veins are quite thin, and a blow delivered in the appropriate direction may be just enough to rupture one or more of them. Then venous bleeding accumulates relatively slowly, as we may imagine occurred in the man you saw and heard discussed today. It has been demonstrated[5] that in only 18 per cent of cases of subdural hemorrhage coming to autopsy is there skull fracture. A final point already mentioned by Dr. Devanney, we have taught for many years that subdural hemorrhage rather than syphilis is the great neurological imitator; you must become aware that subdural hemorrhage can mimic many intracranial conditions. The primary indications for the diagnosis, besides the story and evidences of injury anywhere on the body, are headache, mental signs, and changes in awareness.

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Book Reviews

TREATMENT OF MENTAL DISORDER. Leo Alexander, M.D., W. B. Saunders. Pp. 507. $10.00.

This is rather a handy volume and is obviously the result of long experience with a wide variety of manifestations of mental disorder. In the preface the author states that the tabulations included in this book (his own and others) comprise more than 38,000 cases of mental disorder, including 29,000 cases of schizophrenia.

Beginning with a well reasoned chapter on the major approaches to mental disorder, the author goes on to consider its psychologic nature, its psychosomatic nature, and also the cultural approach to the problem. After a chapter (V) on "Diagnosis in Psychiatry," there is a discussion of the various non-analytic types of psychotherapy.

It is in the physical approaches to the cure of mental disease that the author excels, however, and he goes very carefully into the various types of therapy, their rationale, the methods of procedure, the results, and the complications which might ensue. There are also chapters on the comparable modes of action of psychotherapy and physical treatment in psychiatric disorders.

All aspects of the practical approach to these problems are considered from the treatment techniques to the role of the nurse and the ancillary personnel. One has the feeling that a thorough acquaintance with this volume would be a refresher course to men who, harassed by the necessity of treating large numbers of patients by physical methods, may have lost sight of the underlying rationale and the reasoning and mechanics which are basic for the treatment.

The last chapter, entitled "Frontiers for New Research and Development," is stimulating and it is probably the way in which all psychiatric books should be ended. One is impressed with the broad viewpoint expressed through this book and this reviewer has no hesitation about recommending it highly.

THE PSYCHOLOGY AND PSYCHOTHERAPY OF OTTO RANK by Fay B. Karpf. Philosophical Library, New York. Pp. 127. $3.00.

This small volume sets forth the beliefs and teachings of a controversial figure—a pupil of Freud's and a brilliant one, who seceded from the "master's" circle and carried on in America until his untimely death in 1939.

It was the publication of his controversial *Trauma of Birth* in 1924 which separated Rank from his colleagues and the present author explains it thus: "Rank was left with the regretful feeling that the rift between him and Freud was forced on them against the wishes of both." No doubt professional jealousy was a factor in the situation, for Rank was often referred to after Jung and Adler as the most brilliant of the group and this seemingly was a challenge to some of the other members of the group.

Rank's position in this country is apparently strongest in Philadelphia and especially with social workers. His influence, naturally then, would also be felt in other endeavors, particularly counselling, guidance, various areas of group and community work, etc. Whether this influence will grow in importance, as this author believes, is of course a question which only time can settle.

Rank's "will psychology," so-called, is an "ego psychology"—the ego or self or personality dominating the id rather than the reverse, as in Freudian doctrine. Rank's ego, therefore, is not a battle ground between instinctual life on the one hand and a restraining social world on the other, but "it is a conscious bearer of a striving force that is as the autonomous representative of the will and ethical obligations in terms of a self constituted ideal."

Rank's case and doctrine would have lost nothing in its presentation in this volume had the author not strained so to put Freudian ideas into the limbo of all forgotten and, particularly, had she not quoted several obviously rabid anti-analysts to prove her point.

PROBLEMS OF CONSCIOUSNESS—Transactions of the Third Conference, Josiah Macy Foundation. Edited by Harold A. Abrahamson. Josiah Macy Jr. Foundation. Pp. 156. $3.25.

As the title implies, this is the report of the Third Conference on Problems of Consciousness which is one of the interdisciplinary or, as they put it, the multiprofessional conferences sponsored by the Macy Foundation in an attempt to break down barriers which isolate groups of specialists from one another.

The participants for this Conference were particularly well selected and a varied approach to the problem was assured by the diverse approaches to the subject matter by those who took part.

The first section of the Conference on Consciousness and the Metabolism of the Brain was introduced by Doctor Seymour S. Kety, who began by confessing his continuing belief in a mechanistic interpretation of the universe. He gave his reasons for this and presented a "model of human behavior." His statements furnished the starting point for a brilliant discussion by members of the panel.

Doctor Louis R. Wolberg introduced the second section on Hypnotic Phenomena. He presented a recording of a hypnoanalytic treatment session and a motion picture made by Lester Beck, entitled "Unconscious Motivation." This was the central point around which the discussion centered.

The third portion of the work reports the third section of the Conference, introduced by Marcel

Monnier of the Department of Medicine of the University of Geneva. His presentation concerned "Experimental Work on Sleep and Other Variations of Consciousness." He defines consciousness as a "system which transcribes into signs physiologic patterns elicited in the sense organs and in the brain by outer physical events." As one would expect, this opening led to brilliant observations and hypotheses by the participants. It is through conferences such as these that we shall eventually learn more about such knotty problems and phenomena as consciousness, sleep, etc.

WHEN DOCTORS ARE PATIENTS. Edited by Max Pinner, M.D., and Benjamin F. Miller, M.D. Norton. Pp. 364. $3.95.

This collection of accounts by medical men of illnesses from which they suffer or have suffered, their emotional reactions to disability and their efforts to overcome the physical and emotional consequences of disease provides interesting and illuminating reading for laymen and physicians alike. The former may obtain benefit and comfort from the knowledge that doctors react to illness in the same ways as do other people and from the knowledge of the great achievements possible in overcoming the bodily and psychic handicaps imposed by such conditions. The latter are made aware of the deep emotional significance attached by the patient to serious disorders; and, while it is true that the physician does not have to suffer from a disorder in order to appreciate all the implications of disease, there are few who will not learn something from the reports.

It is often said that doctors make bad patients and it would seem that one of the major reasons for this would lie not with the patient but with the physician's physician. Most medical men, it would appear, desire to be treated as an ordinary patient and do not wish to have thrust upon them responsibilities for therapy that would not be asked of the layman. The need for the therapist to make decisions as to investigations and treatment, especially in the somatic field, and for frank discussion of the problems comes through clearly.

One general impression imparted is that, allowing for increased knowledge of disease, the emotional reactions of physicians are characteristic of the personality of the man rather than of the illness or of the fact that the patient is a doctor. One finds the whole range of responses from attempts to ignore the disability, to efforts to accept and overcome as completely as possible the handicaps imposed. The insecurities aroused vary from financial or the inability to achieve ambitions, to the threat of death itself. Sometimes the bitterness and loss of independence so common in chronically ill patients is apparent, sometimes recognized, and sometimes not. But most encouraging are the results that can be attained by tackling the difficulties in a constructive way. By the combination of moderate change in direction of aims and by the use of methods characteristic of the personality in overcoming handicaps, satisfactory sources of gratification, compatible with the needs and ambitions of the patient, can be uncovered with the achievement of a satisfactory life.

Though confined to patients who are physicians, this book illustrates what could be achieved by the psychosomatic approach to disease as a whole and to the benefits possible by carefully studied rehabilitational projects.

HYPNOSIS IN MODERN MEDICINE. Jerome N. Schneck, M.D., Charles Thomas. Pp. 323. $7.50.

With the advent of psychoanalysis and its widespread acceptance, particularly in American psychiatric circles, hypnosis as a diagnostic and therapeutic agent moved slowly but surely into scientific eclipse. In the past few years, however, there seems to be a reactivation of interest in this subject and this book on medical hypnosis in general examines the status of this age-old procedure.

The work is a compilation of the ideas of 11 authors, all of them well versed in the subject and each with a particular facet of the problem to discuss. There are 11 chapters and an index and the chapters are devoted to consideration of hypnosis in medicine, surgery, obstetrics, anesthesiology, child psychiatry, dentistry, etc. Necessarily there is overlap and expectedly a bit of unevenness, for this is common in works made up of the offerings of so many authors. There also seems to be some defensiveness in parts of the book, unnecessarily so I think, because there are no wild claims made for hypnosis, simply a recital and a judgment upon what is efficacious and what is not.

The last chapter is entitled "Instruction in Hypnosis" and is a bit prolix. The author of it believes that for the student to learn verbatim a fixed routine is worse than a waste of time, because he may come to rely upon it and fail to develop a flexible approach. He states that the teacher of hypnosis should develop and explain the fundamentals and allow the individual therapist to follow principles suited to his own and his patient's personality.

Anyone interested in medical hypnosis should read this volume.

THE ANATOMY OF THE NERVOUS SYSTEM—ITS DEVELOPMENT AND FUNCTION. Stephen Walter Ranson, M.D., Ph.D., revised by Sam Lillard Clark, M.D., Ph.D. W. B. Saunders Co., Philadelphia. Pp. 581. Ninth Edition. 434 illustrations.

This volume is a classic in neuroanatomy and is known to all students, teachers and clinicians as a standard text in this subject. The first edition appeared in 1920; the present edition is the ninth and that fact in itself speaks well for an anatomy book. Doctor Sam L. Clark has edited this present revision.

True to Doctor Ranson's stated aims, an effort is made in the volume to blend the account of structure with function and, in addition to the basic material of previous editions, much new data has been

added and much of the work has been rewritten and brought up to date.

Throughout the various chapters the attention of the student is called to the make-up of the nervous system and the intricacies of its workings and connections. The student is then in position to interpret the functional abnormalities which follow upon various lesions.

Over a hundred pages are devoted to illustrations of brain sections and each one is accompanied by a brief descriptive statement. The entire last chapter is given over to a laboratory outline and quiz section covering the entire subject matter.

Chapter XXI consists of a series of clinical illustrations and 14 examples of the neurologic sequelae of various lesions are given, including drawings of the areas involved. This should be quite helpful to the student and the candidates for examinations.

While it is difficult to teach anatomy as if it were a series of hair raising escapes, it is possible to make it interesting and "functional." This is done in the present text and it is highly recommended.

THE TREATMENT OF INJURIES TO THE NERVOUS SYSTEM. By Donald Munro, M.D. W. B. Saunders Co. Pp. 284. $7.50.

This volume, written by the Chief of the Department of Neurosurgery of the Boston City Hospital, is written primarily for the guidance of the general surgeon and general practitioner. With the seemingly ever increasing number of automobile accidents and the attendant trauma to the brain and spinal cord, however, it would repay every physician to read it, for there is no telling when he might be called upon for assistance in emergency.

The first chapter considers the seemingly prosaic but extremely important things as transportation of the injured, the care of open wounds, the problem of micturition, restraint, the use of drugs, etc. Then follows the material of the neurosurgeon with consideration of each aspect of the problem which the brain and cord of the injured person presents. In addition there is detailed consideration of the injuries to the peripheral nervous system and the autonomic nervous system.

Chapter 8 is written by a representative of a life insurance company and considers the "Cost of Medical Care in Paraplegia and How It May Be Modified by Rehabilitation Devices." It is a revealing chapter for it points up the fact that aside from the humanitarian aspects and the return to some form of activity, rehabilitation also pays off handsomely from an economic standpoint.

Chapter 9 discusses the responsibility of the hospital trustees and staff and has some pretty forthright remarks about necessary equipment and training of personnel and the drawbacks of "peripatetic surgery." Chapter 10 is an excellent one on the general subject of rehabilitation. It takes all aspects of the problem into consideration and one is in admiration of the author for in it he shows up as the "Compleat Doctor"—really interested in the patient as a person.

THE GRASSI BLOCK SUBSTITUTION TEST FOR MEASURING BRAIN PATHOLOGY by Joseph R. Grassi, A.B., M.A. Pp. 75.

This little volume represents another attempt to devise a reasonably accurate test which will indicate the presence of organic cerebral pathology at an early stage. Most of these tests focus attention on the impairment of abstract behavior as a manifestation of organic behavior and, as is well known, schizophrenic patients sometimes confuse the picture by demonstrating just this phenomenon.

Differences in this test from existing block tests lie in the fact that reproductions of designs are made from actual block models rather than from card designs and reproductions of the sides and bottom of the model are used in addition to the top. While this is a more complex test, it is stated that it may be used with individuals whose I.Q.s go as low as 70.

There is no reporting upon how the cut off points were arrived at, and no data appears on the age of the sampling group or the number of failures. Time alone will tell of the efficacy of this test.

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